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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,907	12/27/2001	Ann M. Sutherland	125616-1000	1575

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EXAMINER

PIERCE, JEREMY R

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,907

Applicant(s)

SUTHERLAND ET AL.

Examiner

Jeremy R. Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5, 7, 8, 12, 13, and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5, 12, 13, and 17-19 recite the limitation "threads" in discussing warp and weft threads. There is insufficient antecedent basis for this limitation in the claim.

Claims 7, 12, and 18 recite "the warp threads are formed in groups of three threads." Claim 8, 13, and 19 recite "the weft threads are formed of three threads." The language of threads being formed of threads is vague and indefinite. How are threads formed in groups of three threads? What does that mean? Typically in textiles, most threads are formed from yarns. What structure does a thread formed of three threads have?

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Goldenhersh (U.S. Patent No. 4,861,651).

Goldenhersh disclose an ultraviolet blocking fabric that transmits light (column 6, lines 7-11).

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hughes (U.S. Patent No. 5,503,917).

Hughes discloses an ultraviolet blocking fabric with apertures to permit air circulation (column 1, lines 58-66), which would also transmit light.

6. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Edwards et al. (U.S. Patent No. 6,037,280).

Edwards et al. disclose a porous woven fabric that has increased ultraviolet blocking (column 4, lines 7-12). With regard to claim 2, the fabric is colored (Abstract) and may be made of acrylic (column 4, line 3). With regard to claim 4, Edwards et al. disclose using spun yarn (column 4, line 9).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al. in view of Wade (U.S. Patent No. 6,268,450).

While Edwards et al. disclose using standard acrylic fibers in the woven material, the reference does not disclose using acrylonitrile fiber. Wade discloses fibers particularly suited for use in outdoor textiles because of their UV stability (column 1, lines 11-14) that comprise up to 98% acrylonitrile (column 2, lines 11-14). It would have been obvious to one having ordinary skill in the art to use the acrylonitrile fibers disclosed by Wade in the textile taught by Edwards in order to provide a woven material with improved UV stability.

9. Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al. in view of Hughes.

With regard to claims 5 and 6, Edwards et al. disclose forming a porous woven fabric, but do not disclose the size of the openings. Hughes teaches the ratio of apertures to thread is a result effective variable that increases breathability and decreases UV protection when the apertures are great, and vice-versa when the apertures are less. It would have been obvious to one having ordinary skill in the art to adjust the openings in the fabric of Edwards et al. to the claimed range of about 0.03 to 0.25 inches square, preferably 0.063 inches square as a matter of optimization of the breathability and UV protection properties, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). With regard to claims 7-10, Edwards et al. disclose the woven material may be formed of fibers, threads, tows, and

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yarns. Hughes discloses that the thread count is another variable that can affect the tightness of the weave (column 1, line 41). Neither reference discloses the number of threads in a thread, the yarn number or the number of plies in the yarn. It would have been obvious to one having ordinary skill in the art to use three threads in the warp and weft threads in order to optimize and increase the strength of the textile, rather than using mono-strand threads. It would also have been obvious to one having ordinary skill in the art to adjust the fineness to a yarn number of 24 with a 2 ply yarn as a result effective variable that would adjust the weave density and strength of the textile, and thus affecting the breathability and UV protection properties, as set forth above.

10. Claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al. in view of Wade as set forth above in section 8 and further in view of Hughes, as set forth above in section 9.

11. Claims 2-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldenhersh in view of Wade.

Goldenhersh discloses the fabric may be formed of synthetic materials (column 3, line 19), but does not disclose using acrylonitrile fiber. Wade discloses fibers particularly suited for use in outdoor textiles because of their UV stability (column 1, lines 11-14) that comprise up to 98% acrylonitrile (column 2, lines 11-14). It would have been obvious to one having ordinary skill in the art to use the acrylonitrile fibers disclosed by Wade in the textile taught by Goldenhersh in order to provide a woven material with improved UV stability. With regard to claim 4, the use of staple fiber yarn would be obvious to a person in the art of textiles in order to provide sufficiently strong

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yarn that is cheaply made. With regard to claims 5, 6, 11, and 17, Goldenhersh disclose the apertures in the fabric are only limited in size by the ability of the coating composition to fill the apertures (column 3, line 66 –column 4, line 1). It would have been obvious to one having ordinary skill in the art to adjust the openings in the fabric of Goldenhersh to the claimed range of about 0.03 to 0.25 inches square, preferably 0.063 inches square as a matter of optimization of the breathability and UV protection properties, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. With regard to claims 7-10 and 12-19, Goldenhersh fails to disclose the number of threads in a thread, the yarn number or the number of plies in the yarn. It would have been obvious to one having ordinary skill in the art to use three threads in the warp and weft threads in order to optimize and increase the strength of the textile, rather than using mono-strand threads. It would also have been obvious to one having ordinary skill in the art to adjust the fineness to a yarn number of 24 with a 2 ply yarn as a result effective variable that would adjust the weave density and strength of the textile, and thus affecting the breathability and UV protection properties.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent No. 5,637,348 to Thompson et al. and U.S. Patent No. 6,106,947 to Smith.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

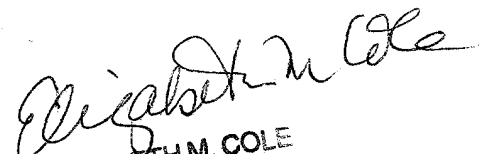
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jeremy R. Pierce
Examiner
Art Unit 1771

August 20, 2003



ELIZABETH M. COLE
PRIMARY EXAMINER